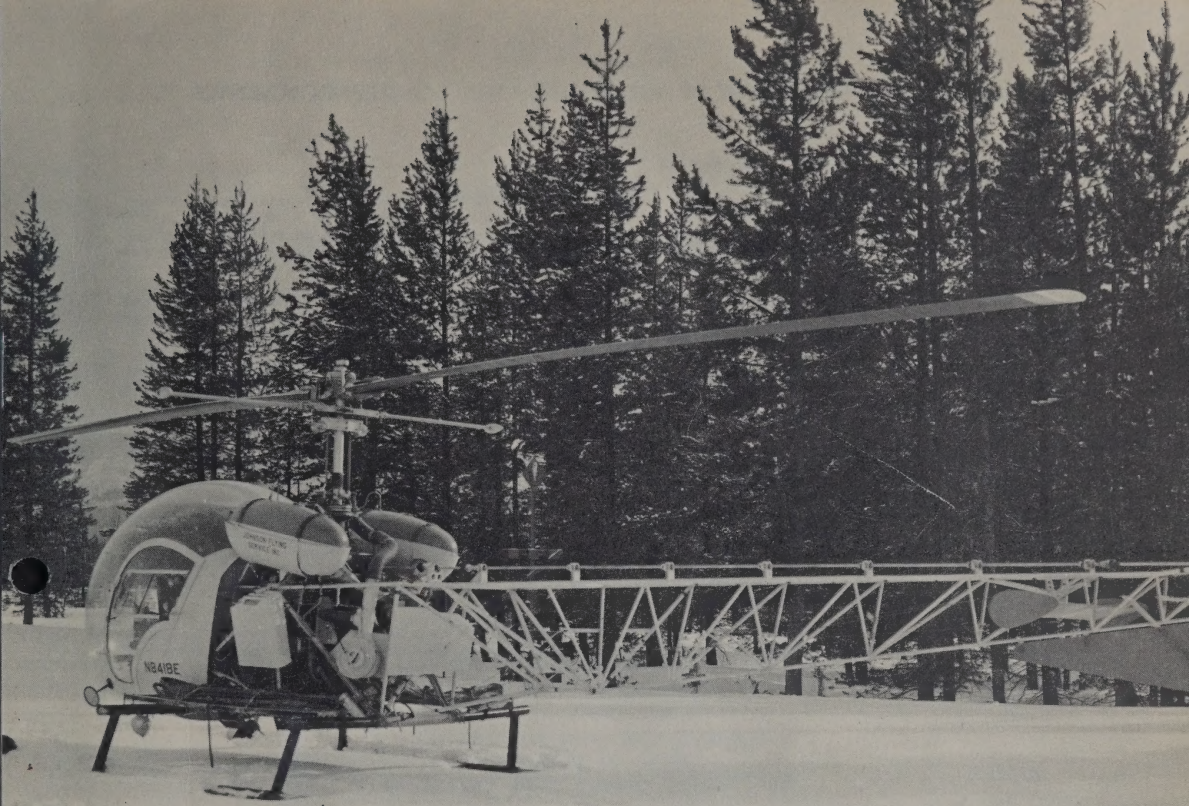

WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
MONTANA

UNITED STATES DEPARTMENT of AGRICULTURE···SOIL CONSERVATION SERVICE.
and
MONTANA AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with Federal, State, and private organizations listed on the inside back cover of this report.

AS OF
MAR. 1, 1965

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Water Supply Outlook Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from advance estimates of the streamflow.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, up to 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

Streamflow forecasts are obtained by a comparison of total or maximum snow accumulation, as measured by snow water equivalent, to the subsequent spring and summer or snowmelt season runoff over a period of years. The snow water equivalent measured in selected snow courses provides most of the index to the streamflow forecast for the following season. More accurate forecasts are usually obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast procedure. Early season forecasts assume average climatic conditions through the snowmelt season.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions. Soil Conservation Service Reports may be secured from Soil Conservation Service, 511 N.W. Broadway - Room 507, Portland, Oregon 97209.

PUBLISHED BY SOIL CONSERVATION SERVICE

REPORTS	ISSUED	LOCATION	COOPERATING WITH
RIVER BASINS			
WESTERN UNITED STATES	MONTHLY (FEB.-MAY)	PORTLAND, OREGON	ALL COOPERATORS
BASIC DATA SUMMARY	OCTOBER 1	PORTLAND, OREGON	ALL COOPERATORS
STATES			
ALASKA	MONTHLY (MAR.-MAY)	PALMER, ALASKA	ALASKA S.C.D.
ARIZONA	SEMI-MONTHLY (JAN.15 - APR.1)	PHOENIX, ARIZONA	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
COLORADO AND NEW MEXICO	MONTHLY (FEB.-MAY)	FORT COLLINS, COLORADO	COLO. STATE UNIVERSITY COLO. STATE ENGINEER N. MEX. STATE ENGINEER
IDAHO	MONTHLY (JAN.-JUNE)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
MONTANA	MONTHLY (JAN.-JUNE)	BOZEMAN, MONTANA	MONT. AGR. EXP. STATION
NEVADA	MONTHLY (JAN.-MAY)	RENO, NEVADA	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES
OREGON	MONTHLY (JAN.-JUNE)	PORTLAND, OREGON	OREG. STATE UNIVERSITY OREGON STATE ENGINEER
UTAH	MONTHLY (JAN.-JUNE)	SALT LAKE CITY, UTAH	UTAH STATE ENGINEER
WASHINGTON	MONTHLY (FEB.-JUNE)	SPOKANE, WASHINGTON	WN. STATE DEPT. OF CONSERVATION
WYOMING	MONTHLY (FEB.-JUNE)	CASPER, WYOMING	WYOMING STATE ENGINEER

PUBLISHED BY OTHER AGENCIES

REPORTS	ISSUED	AGENCY
BRITISH COLUMBIA	MONTHLY (FEB.-JUNE)	WATER RESOURCES SERVICE, DEPT. OF LANDS, FOREST AND WATER RESOURCES, PARLIAMENT BLDG., VICTORIA, B.C., CANADA
CALIFORNIA	MONTHLY (FEB.-MAY)	CALIF. DEPT. OF WATER RESOURCES, P.O. BOX 388, SACRAMENTO, CALIF.

WATER SUPPLY OUTLOOK

FEDERAL-STATE-PRIVATE COOPERATIVE SNOW SURVEYS

for

MONTANA

Report Prepared

By

Phillip E. Farnes
Snow Survey Supervisor

and

Stanley E. Cook
Assistant Snow Survey Supervisor

Snow Survey and Water Supply Forecasting Branch
Soil Conservation Service
Box 855
Bozeman, Montana

Issued By

H. D. Hurd
State Conservationist
Soil Conservation Service
Bozeman, Montana

J. A. Asleson, Director
Montana Agricultural
Experiment Station
Bozeman, Montana

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MONTANA
WATER SUPPLY OUTLOOK
as of
March 1, 1965

* Snow water equivalent at high elevations is maximum or near maximum of record. Median elevation snow cover is above average. Irrigation water supplies should be excellent to good over the entire state. Late season irrigation supplies should be good, as the snow pack is very dense for this time of year and will help to delay snowmelt.

West of the divide, snow cover in the Flathead, Clark Fork and Bitterroot drainages is 30 to 40 percent more than a year ago and 25 to 30 percent above average. In the Kootenai drainage, snow cover is 25 percent more than a year ago and about 10 percent above average. Most high elevation snow courses recorded maximum or near maximum of record water equivalent for this time of year.

East of the divide, snow pack is near record on the Missouri and Yellowstone headwaters. Measurements indicate water stored in the snow is 50 to 60 percent more than a year ago and about 50 percent above the 1948-62 average.

Along the main stem of the Missouri River, snow cover is 30 percent greater than a year ago and about 35 percent above average.

Streamflow for the April through September period, both east and west of the divide, is expected to be fifth to second highest in the past 30 years. One exception is the Kootenai River where near average flows are forecast as snow cover is below average in the headwaters of British Columbia, increasing to above average in Montana portions of the drainage.

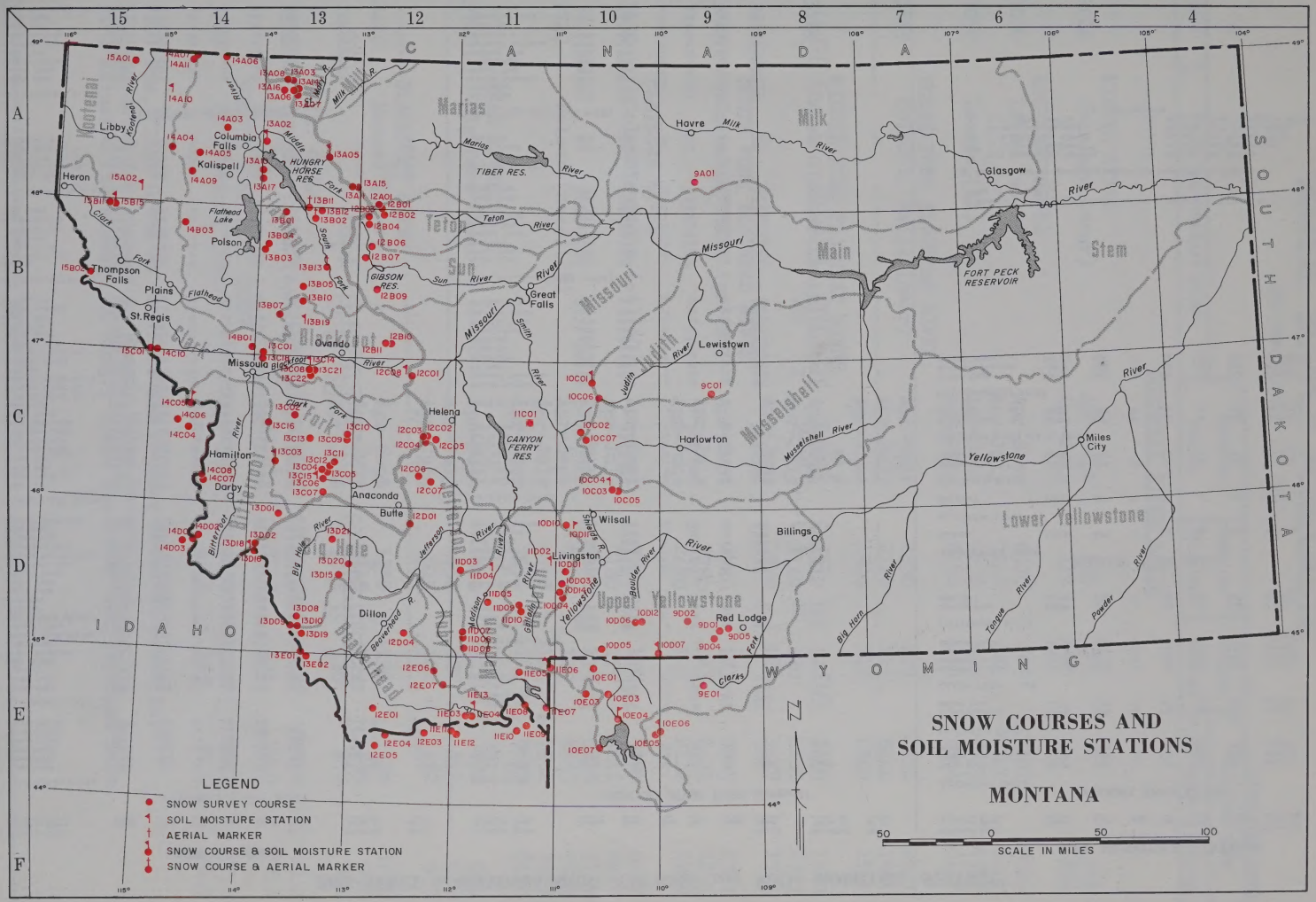
Although snow cover is heavy the potential for an abnormally high rate of runoff this spring is not much greater than in any other year. The snow pack is very dense and not as susceptible to fast runoff as would be a less dense pack. The magnitude of spring runoff is almost entirely dependent on temperatures during the snowmelt season. Whether or not high flows occur will depend on weather conditions during the last half of May and throughout June.

Soil moisture is generally near or below average at the higher elevations, near average at the median elevations, and average to above average at lower elevations west of the divide.

East of the divide, high elevation soil moisture is below average, near average at median elevations, and average or above average at low elevations.

Reservoir storage is generally near or above average for this time of year. Those responsible for reservoir regulation should give serious consideration to release of stored water where practical and feasible to assure control of spring runoff.

Two additional snow courses have been established. Saddle Mountain is located about two miles west of Lost Trail Pass and is in the Bitterroot drainage. South Fork Shields is located in the headwaters of the South Fork Shields River very near the divide of the Crazy Mountains in the Yellowstone River drainage.


SNOW COURSES AND
SOIL MOISTURE STATIONS
MONTANA
LEGEND
SNOW SURVEY COURSE
SOIL MOISTURE STATION
AERIAL MARKER
SNOW COURSE & SOIL MOISTURE STATION
SNOW COURSE & AERIAL MARKER
SCALE IN MILES
50 0 50 100
CANADA
SOUTH DAKOTA
WYOMING
IDAHO
Marias
Milk
Main Stem
Missouri
Sun
Teton
Blackfoot
Clark Fork
Flathead
Kootenai
Musselshell
Lower Yellowstone
Upper Yellowstone
Big Hole
Beaverhead
Madison
Gallatin
Jefferson
Boulder
Shields
Judith
Smith
Dearborn
Sun River
Teton River
Missouri River
Marias River
Milk River
Judith River
Musselshell River
Yellowstone River
Big Horn River
Tongue River
Powder River
Shields R.
Boulder River
Clarks Fork
Fort Peck Reservoir
Tiber Res.
Gibson Res.
Canyon Ferry Res.
Hungry Horse Res.
Libby
Heron
Thompson Falls
Plains
St. Regis
Polson
Kalispell
Columbia Falls
Flathead Lake
Missoula
Ovando
Hamilton
Darby
Anaconda
Butte
Dillon
Helena
Great Falls
Havre
Glasgow
Lewistown
Harlowton
Miles City
Billings
Wilsall
Livingston
Red Lodge

1965 INDEX to MONTANA SNOW COURSES and SOIL MOISTURE STATIONS

SNOW COURSES

Drainage Basin & Course Name	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
COLUMBIA RIVER BASIN								
KOOTENAI RIVER								
Baree Creek	15B11	5500	36	26N	31W	1956	3,4,5,5½	2
Baree Trail	15B15	3800	5	25N	30W	1965	3,4,5,5½	2
Brush Creek	14A04	5000	12	30N	26W	1937	3,4,5	1,2
Graves Creek	14A11	4300	1	36N	25W	1965	3,4,5,5½	1,2
Red Mountain	15A01	6000	4	36N	29W	1937	3,4,5,5½,6	1,2
Weasel Divide	14A07	5450	20	37N	24W	1937	3,4,5,5½,6	1,2
FLATHEAD RIVER								
Bassoo Peak	14B03	5150	11	24N	25W	1961	3,4,5	1,5
Beaver Lake	13A11	5900	31	28N	11W	1964	3,4,5	1
Big Creek	13B03	6750	7	22N	18W	1941	3,4,5, 6	1,5
Camp Misery	13A17	6400	30	28N	18W	1962	3,4,5	1,2
Desert Mountain	13A02	5600	24	31N	19W	1937	1,2,3,4,5, 6	1,2
Fatty Creek	13B04	5500	8	22N	18W	1962	3,4,5, 6	1,5
Griffin Creek Divide	14A09	5150	11	28N	25W	1960	3,4,5	1,5
Gunsight Lake	13B12	6300	35	26N	14W	1964	3,4,5	1
Hell Roaring Divide	14A03	5770	35	32N	22W	1942	1,2,3,4,5,5½,6	2
Holbrook	13B13	4530	18	21N	13W	1951	1,2,3,4,5	1
Kishenehn	14A06	3890	14	37N	22W	1954	3,4	6
Logan Creek	14A05	4300	34	30N	24W	1937	3,4,5	1,2
Marias Pass	13A05	5250	34	30N	14W	1934	1,2,3,4,5	3
Mineral Creek	13A16	4000	29	35N	17W	1957	3,4,5	6
North Fork Jocko	13B07	6330	3	17N	17W	1941	3,4,5,5½,6	1,5
Spotted Bear Mountain	13B02	7000	23	25N	15W	1948	1,2,3,4,5	1,2
Strawberry Lake	13A10	5600	11	28N	19W	1948	3,4,5	1
Trinkus Lake	13B01	6100	9	25N	17W	1948	3,4,5	1
Twin Creeks	13B11	3580	24	26N	16W	1951	1,2,3,4,5	1,2
Upper Holland Lake	13B05	7000	28	20N	15W	1948	3,4,5	1
CLARK FORK RIVER,								
Black Pine	13C13	7100	26	8N	15W	1959	3,4,5	1,2
Copper Creek	12B10	5700	1	15N	9W	1962	3,4,5	1,2
Cotter Mine	12B11	6250	2	15N	9W	1962	3,4,5	1,2
Coyote Hill	13B10	4200	12	18N	16W	1947	1,2,3,4,5	1,2
El Dorado Mine	13C09	7800	23	8N	12W	1949	3,4	1
Fred Burr Pass	13C11	8000	12	6N	13W	1957	3,4,5	1
Gold Creek Lake	13C10	7200	14	8N	12W	1949	3,4	1
Heart Lake Trail	14C10	4800	11	14N	27W	1965	3,4,5	1,2
Hoodoo Creek	15C01	5900	16	14N	27W	1937	3,4,5	1,2
Intergaard	13C04	6450	6	5N	13W	1936	2,3,4,5	4
Lubrecht Forest No. 3	13C21	5450	19	13N	14W	1951	1,2,3,4,5	8
Lubrecht Forest No. 4	13C22	4650	23	13N	15W	1951	1,2,3,4,5	8
Lubrecht Forest No. 6	13C08	4040	11	13N	15W	1951	1,2,3,4,5	8
Red Lion	13C12	7100	22	6N	13W	1958	3,4,5	1
Skalkaho Summit	13C03	7260	30	6N	17W	1937	3,4,5,5½,6	1
Slide Rock Mountain	13C02	7100	35	10N	16W	1937	3,4,5	1
Southern Cross	13C05	6500	8	5N	13W	1936	2,3,4	4
Spring Gulch	13C18	6000	12	14N	19W	1961	1,2,3,4,5	8
Shore Lake	13C07	7780	19	4N	13W	1939	1,2,3,4,5	1
Stuart Mill	13C06	6500	19	5N	13W	1936	2,3,4	4
Stuart Mountain	13C01	7400	6	14N	18W	1936	1,2,3,4,5, 6	8
TV Mountain	14B01	6800	33	15N	19W	1956	1,2,3,4,5	8
BITTERROOT RIVER								
Asbrose	13C16	6480	28	9N	18W	1960	3,4,5	1
East Fork R. S.	13D01	5400	16	2N	17W	1937	3,4	1
Gibbons Pass	13D02	7100	4	2S	19W	1934	1,2,3,4,5,5½,6	1,3
Lost Horse	14C07	5940	5	4N	23W	1960	3,4,5	1
Nez Perce Camp	14D02	5680	19	1S	23W	1937	3,4,5	1
Nez Perce Pass	14D01	6570	25	1S	24W	1937	3,4,5	1
Twin Lakes	14C08	6510	32	5N	23W	1960	3,4,5	1
ST. MARY RIVER BASIN								
Iceberg Lake No. 3	13A03	5660	1	35N	17W	1922	5	3,9
Josephine Lower No. 9	13A14	4900	22	35N	16W	1955	5	3,9
Mount Allen No. 7	13A07	5700	27	35N	16W	1922	5	3,9
Piegan Pass No. 6	13A06	5500	27	35N	16W	1922	5	3,9
Pitamigen No. 8	13A08	5800	36	36N	17W	1937	5	3,9
MISSOURI RIVER BASIN								
BEAVERHEAD RIVER								
Bloody Dick	13D10	7600	12	8S	16W	1948	3,4,5	1
Carter Creek	12D04	7400	22	8S	7W	1963	3,4	1
Elkhorn Springs	13D15	7800	21	4S	12W	1935	3,4,5	3
Gold Stone	13D09	8100	11	8S	16W	1948	3,4,5	1
Lakeview Canyon	11E04	6930	26	14S	2W	1948	3,4,5	10
Lakeview Ridge	11E03	7400	27	14S	2W	1948	3,4,5	10
Lemhi Pass	13E01	7480	9	10S	15W	1948	3,4	1
Trail Creek	13E02	7090	15	10S	15W	1948	3,4	1
White Pine Ridge	12E01	8850	18	14S	9W	1948	3,4,5	1

Drainage Basin & Course Name	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
MISSOURI RIVER BASIN (continued)								
RUBY RIVER								
Clover Meadow	11D08	8600	28	9S	2W	1963	3,4,5	1
Divide	12E07	7900	14	12S	4W	1963	3,4,5	1
Notch	12E06	8500	18	11S	4W	1963	3,4,5	1
BIG HOLE RIVER								
Abundance Lake	13D20	8800	7	3S	11W	1963	3,4,5	1
Darkhorse Lake	13D19	8600	4	8S	16W	1963	3,4,5	1
Foolhen	13D21	8500	11	1S	13W	1963	3,4,5	1
Jahnke Creek	13D08	7340	25	7S	16W	1948	3,4,5	1
JEFFERSON RIVER								
Berry Meadow	12D07	7300	8	5N	5W	1962	3,4,5	1
Picnic Grounds	12D06	6500	10	5N	6W	1941	2,3,4	4
Pipestone Pass	12D01	7200	10	1N	7W	1938	1,2,3,4,5	1
MADISON RIVER								
Call Road	11D07	8050	21	8S	2W	1962	3,4,5	1
Crockett Lake	11D06	8400	20	8S	2W	1962	3,4,5	1
Hebgen Dam	11E05	6550	22	11S	3E	1934	1,2,3,4,5	3
Jack Creek	11D05	6800	13	6S	1E	1961	3,4	1
North Meadow	11D03	7500	23	3S	3W	1961	3,4	1
West Yellowstone	11E07	6700	34	13S	5E	1934	1,2,3,4,5	3
GALLATIN RIVER								
Arch Falls	10D14	7350	3	5S	6E	1963	2,3,4,5,5½	1
Bear Basin	11D09	8150	9	6S	3E	1963	3,4,5	1
Devil's Slide	10D04	8100	14	5S	6E	1935	2,3,4,5,5½,6	1
Hood Meadow	10D03	6600	22	4S	6E	1935	2,3,4,5,5½	1
Little Park	11D10	7400	22	6S	3E	1963	3,4,5	1
New World	10D01	6700	24	3S	6E	1939	2,3,4	1
Twenty-One Mile	11E06	7150	1	11S	5E	1934	1,2,3,4,5	3
MISSOURI RIVER MAIN STEM								
Boulder Mountain	11C01	7950	1	9N	3E	1963	3,4,5	1
Chessman Reservoir	12C05	6200	2	8N	5W	1935	1,2,3,4,5	3
Elk Peak	10C07	8000	10	8N	8E	1963	3,4,5	1
Grasshopper	10C02	7000	19	9N	8E	1938	3,4,5	1
Kings Hill	10C01	7500	34	13N	8E	1934	3,4,5	3
Rocky Boy	9A01	5200	15	28N	16E	1941	3,4	7
Stemple Pass	12C01	6600	16	13N	7W	1934	3,4,5	3
Ten Mile Lower	12C02	6600	12	8N	6W	1935	1,2,3,4,5	3
Ten Mile Middle	12C03	6800	13	8N	6W	1934	1,2,3,4,5	3
Ten Mile Upper	12C04	8000	19	8N	5W	1935	1,2,3,4,5	3
SUN-TETON-MARIAS RIVERS								
Badger Pass	13A15	6900	4	27N	11W	1964	3,4,5	1
Cabin Creek	12B06	5200	33	23N	10W	1949	3,4,5	1
Five-Ball	12B09	5700	25	20N	10W	1948	3,4,5	1
Freight Creek	12A01	6000	13	26N	10W	1948	3,4,5	1
Goat Mountain	12B07	7000	20	22N	10W	1934	3,4,5	3
Waldron Creek	12B02	5500	16	25N	9W	1948	3,4,5	1
West Fork	12B01	6000	6	25N	9W	1948	3,4,5	1
Wrong Creek	12B04	5700	32	25N	10W	1949	3,4,5	1
Wrong Ridge	12B03	6800	17	25N	10W	1949	3,4,5	1
JUDITH RIVER								
Crystal Lake	9C01	6100	19	12N	18E	1941	3,4	1
Spur Park	10C06	8000	20	12N	9E	1963	3,4,5	1
UPPER YELLOWSTONE RIVER								
Bald Ridge	10C05	7500	11	4N	10E	1961	3,4	1
Camp Senis	9D01	7890	2	8S	18E	1937	3,4,5	1
Crevice Mountain	10D05	8400	22	9S	9E	1935	3,4	2
Grizzly Peak	9D05	8400	26	7S	19E	1961	1,2,3,4,5	1
Independence	10D06	8000	22	7S	12E	1940	3,4,5	1
Monument Peak	10D12	9000	22	7S	12E	1961	3,4,5	1
Northeast Entrance	10D07	7400	33	9S	14E	1937	1,2,3,4,5	6
Porcupine R. S.	10C03	6500	10	4N	10E	1938	3,4	1
Sacajawea	10D10	6550	36	2N	6E	1960	3,4,5	1
Timberline Creek	9D04	8850	10	8S	18E	1961	3,4,5	1
West Rosebud	9D02	7500	9	7S	16E	1960	3,4	4

SOIL MOISTURE STATIONS

Drainage Basin & Course Name	Number	Elev.	Sec.	Twp.	Range	Record Began	Measuring Dates 1/	Meas. By 2/
COLUMBIA RIVER BASIN								
KOOTENAI RIVER								
Baree Trail	15B15M	3800	5	25N	30W	1964	Monthly	2
Murphy Lake R. S.	14A10M	3000	5	34N	25W	1964	Monthly	2
Raven R. S.	15A02M	3050	2	26N	29W	1964	Monthly	2
FLATHEAD RIVER								
Desert Mountain	13A02M	5600	24	31N	19W	1956	Monthly	1
Marias Pass	13A05M	5250	34	30N	14W	1950	Monthly	1
CLARK FORK RIVER								
Georgetown Lake	13C15M	6450	6	5N	13W	1962	Monthly	1
Lubrecht Forest	13C14M	4100	11	13N	15W	1961	Monthly	8
Seeley Lake	13B19M	4030	21	17N	15W	1963	Monthly	2
Skalkaho Summit	13C03M	7260	30	6N	17W	1964	Monthly	1
BITTERROOT RIVER								
Gibbons Pass	13D18M	7100	4	2S	19W	1962	Monthly	1
Lolo Pass	14C05M	5250	11	10N	24W	1963	Monthly	1
MISSOURI RIVER BASIN								
BEAVERHEAD RIVER								
Lakeview	11E13M	6700	23	14S	2W	1962	Monthly	10
MADISON RIVER								
Red Bluff	11D04M	4800	7	3S	1E	1961	Monthly	7
GALLATIN RIVER								
College Site	11D02M	4856	18	2S	5E	1956	Monthly	1
Twenty-One Mile	11E06M	7150	1	11S	5E	1963	Monthly	6
MISSOURI RIVER MAIN STEM								
Stemple Pass	12C08M	6350	16	13N	7W	1963	Monthly	1
Kings Hill	10C01M	7420	34	13N	8E	1963	Monthly	1
YELLOWSTONE RIVER								
Battle Ridge	10D11M	6020	32	2N	7E	1960	Monthly	1
Northeast Entrance	10D07M	7350	33	9S	14E	1962	Monthly	6
Shields River	10C04M	5850	4	4N	10E	1960	Monthly	1

1/ Numerals 1,2,3,4,5,5½,6 refer to January 1, February 1, March 1, April 1, May 1, May 15 and June 1.

2/ Numerals refer to Agency that secures the snow survey as follows:

1. Soil Conservation Service
2. U. S. Forest Service
3. U. S. Geological Survey
4. Montana Power Company
5. U. S. Indian Service
6. National Park Service
7. Montana Experiment Station
8. Montana State Forestry School
9. Dominion Water & Power Bureau
10. Bureau of Sport Fisheries & Wildlife

M - Soil Moisture

WATER SUPPLY FORECASTS

AS OF MARCH 1, 1965

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	COLUMBIA RIVER BASIN					
	FISHER RIVER					
3020	Jennings (near)	Apr-Sept	335	105		318
		Apr-July	318	105		302
	KOOTENAI RIVER					
3030	Libby (at)	Apr-Sept	8320	103	7802	8096
		Apr-July	7240	103	6745	7010
3050	Leonia (at)	Apr-Sept	9636	103	9037	9327
		Apr-July	8450	103	7842	8179
	NORTH FORK FLATHEAD RIVER					
3555	Columbia Falls (near)	Apr-Sept	2330	115	2232	2027
		Apr-July	2120	115	2044	1844
		Apr-June	1800	115	1746	1565
	MIDDLE FORK FLATHEAD RIVER					
3585	West Glacier (near)	Apr-Sept	2310	120	2440	1923
		Apr-July	2140	120	2260	1785
		Apr-June	1830	120	1929	1521
	SOUTH FORK FLATHEAD RIVER					
3625	Columbia Falls (nr)(17)	Apr-Sept	2920	123	2595	2381
		Apr-July	2780	123	2431	2262
		Apr-June	2450	123	2112	1988
	FLATHEAD RIVER					
3630	Columbia Falls (at)(17)	Apr-Sept	7750	119	7389	6497
		Apr-July	7180	119	6841	6028
		Apr-June	6170	119	5836	5185
3720	Polson (near)(18)	Apr-Sept	9380	120	8553	7778
		Apr-July	8700	120	7854	7229
		Apr-June	7450	120	6629	6188
	SWAN RIVER					
3700	Big Fork (near)	Apr-Sept	850	122	706	694
		Apr-July	750	122	615	614
		Apr-June	615	122	482	503
	BLACKFOOT RIVER					
3400	Bonner (near)	Apr-Sept	1350	130	1105	1036
		Apr-July	1215	130	1004	938
		Apr-June	1055	130	870	812
	FLINT CREEK					
3301	Boulder Creek (below)(13)	Apr-Sept	88.5	121	88.7	73.0
		Apr-July	71.7	121	72.5	59.1
	MIDDLE FORK ROCK CREEK					
3320	Philipsburg (near)	Apr-Sept	97.0	125	86.9	77.8
		Apr-July	88.5	125	77.9	70.5

(13) Sum, Flint Creek at Maxville and Boulder Creek at Maxville.
(17) Adjusted for storage in Hungry Horse Reservoir.
(18) Adjusted for storage in Hungry Horse Reservoir and Flathead Lake.

* PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY FORECASTS

AS OF MARCH 1, 1969

No.	Name and Forecast Point	Forecast Period	Forecast This Year	Forecast Average	Measured Flow Last Year	Measured Flow Average
	COLUMBIA RIVER BASIN					
	FLATHEAD RIVER					
3020	Jennings (near)	Apr-Sept	135	105	218	202
		Apr-July	116	105		
	KOOTENAI RIVER					
3030	Libby (at)	Apr-Sept	8320	103	7202	8006
		Apr-July	7210	103	6745	7238
3050	Leonia (at)	Apr-Sept	9430	103	8027	9327
		Apr-July	8450	103	7482	8179
	NORTH FORK FLATHEAD RIVER					
3555	Columbia Falls (near)	Apr-Sept	2330	115	2232	2027
		Apr-July	2120	115	2024	1842
		Apr-June	1800	113	1710	1552
	MIDDLE FORK FLATHEAD RIVER					
3585	West Glacier (near)	Apr-Sept	2750	120	2430	1975
		Apr-July	2340	120	2240	1788
		Apr-June	1850	120	1929	1521
	SOUTH FORK FLATHEAD RIVER					
3625	Columbia Falls (nr)(17)	Apr-Sept	2020	123	2295	2381
		Apr-July	1750	123	2131	2202
		Apr-June	1450	123	2112	1999
	FLATHEAD RIVER					
3630	Columbia Falls (at)(17)	Apr-Sept	7750	119	7395	8027
		Apr-July	7150	119	6841	6823
		Apr-June	6270	119	5836	5128
3720	Polson (near)(16)	Apr-Sept	9360	120	8585	7778
		Apr-July	8700	120	7951	7259
		Apr-June	7450	120	6929	6189
	SWAN RIVER					
3700	Big Fork (near)	Apr-Sept	850	122	705	691
		Apr-July	750	122	615	614
		Apr-June	615	122	492	503
	BLACKFOOT RIVER					
3600	Bonner (near)	Apr-Sept	1350	130	1105	1036
		Apr-July	1215	130	1004	958
		Apr-June	1055	130	870	812
	PILOT CREEK					
3505	Boulder Creek (below)(15)	Apr-Sept	88.5	121	85.7	73.0
		Apr-July	87.7	121	72.5	59.1
	MIDDLE FORK ROCK CREEK					
3520	Philipsburg (near)	Apr-Sept	77.0	125	69.9	77.8
		Apr-July	88.5	125	77.9	70.5

(15) Sum, Flint Creek at Maxville and Boulder Creek at Maxville.
(17) Adjusted for storage in Hungry Horse Reservoir.
(16) Adjusted for storage in Hungry Horse Reservoir and Flathead Lake.

WATER SUPPLY FORECASTS

AS OF MARCH 1, 1965

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	CLARK FORK RIVER					
3404	Milltown (above)(14)	Apr-Sept	990	123	1025	802
		Apr-July	870	123	902	705
		Apr-June	750	123	769	605
3405	Missoula (above)	Apr-Sept	2340	127	2130	1838
		Apr-July	2085	127	1906	1642
		Apr-June	1805	127	1639	1417
3530	Missoula (below)	Apr-Sept	4350	128	3861	3391
		Apr-July	3955	128	3483	3088
		Apr-June	3425	128	2935	2670
3545	St. Regis (at)	Apr-Sept	5880	127	5033	4642
		Apr-July	5380	127	4534	4230
		Apr-June	4660	127	3826	3671
3890	Plains (near)(18)	Apr-Sept	15600	122	13905	12793
		Apr-July	14300	122	12618	11736
		Apr-June	12300	122	10581	10077
3920	Whitehorse Rapids (at)(19)	Apr-Sept	17500	122		14398
		Apr-July	16000	122		13187
		Apr-June	13800	122		11318
	WEST FORK BITTERROOT RIVER					
3425	Conner (near)(15)	Apr-Sept	225	125		179
		Apr-July	210	125		168
	BITTERROOT RIVER					
3440	Darby (near)	Apr-Sept	750	129	730	582
		Apr-July	700	129	708	542
		Apr-June	617	129	600	478
3528	Missoula (at)(16)	Apr-Sept	2010	129	1731	1553
		Apr-July	1870	129	1577	1446
		Apr-June	1620	129	1296	1253
	BLODGETT CREEK					
3475	Corvallis (near)	Apr-Sept	57.0	128		44.6
		Apr-July	54.5	128		42.6

(14) Difference in observed flow, Clark Fork above Missoula & Blackfoot near Bonner
(15) Adjusted for storage in Painted Rocks Reservoir.
(16) Difference in observed flow, Clark Fork above and below Missoula.
(18) Adjusted for storage in Hungry Horse Reservoir and Flathead Lake.
(19) Adjusted for storage in Hungry Horse, Flathead Lake and Noxon Rapids Reservoirs.

*PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY FORECASTS

AS OF MARCH 1, 1965

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST (1000 Acre Feet)	
			THIS YEAR	LAST YEAR
	CLEAR FORK RIVER			
3204	Millers Creek (above)(1a)	Apr-Sept	990	127
		Apr-July	870	121
		Apr-June	750	107
3205	Albany (above)	Apr-Sept	2340	127
		Apr-July	2068	127
		Apr-June	1850	127
3230	Albany (below)	Apr-Sept	3750	128
		Apr-July	3405	128
		Apr-June	3125	128
3245	Mt. Sopis (at)	Apr-Sept	7880	127
		Apr-July	6940	127
		Apr-June	6050	127
3260	Phelps (near)(1a)	Apr-Sept	17000	122
		Apr-July	14700	122
		Apr-June	12400	122
3280	Whitehorse Bayou (at)(1b)	Apr-Sept	27500	109
		Apr-July	24000	124
		Apr-June	21000	124
	WEST FORK BRAZOS RIVER			
3425	Graham (near)(1c)	Apr-Sept	224	128
		Apr-July	210	129
	BRAZOS RIVER			
3440	Seymour (near)	Apr-Sept	780	129
		Apr-July	720	129
		Apr-June	610	129
3520	Aspermont (at)(1d)	Apr-Sept	4600	128
		Apr-July	3800	129
		Apr-June	3200	129
	BRAZOS DIRECT			
3475	Graford (near)	Apr-Sept	970	126
		Apr-July	840	128

(1a) Difference in observed flow, Clear Fork above Albany & Elevation near Graham
(1b) Adjusted for storage in Lake Kemp, Diversion Reservoir.
(1c) Difference in observed flow, Clear Fork above and below Albany.
(1d) Adjusted for storage in Seymour Dam Reservoir and Millwood Lake.
(1e) Adjusted for storage in Graford Dam, Eliasson Lake and Possum Kingdom Reservoirs.

WATER SUPPLY FORECASTS

AS OF MARCH 1, 1965

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW	
					LAST YEAR*	AVERAGE
	MISSOURI RIVER BASIN					
	RED ROCK RIVER					
0110	Kennedy Ranch (at)	Apr-Sept	100	139	83.7	71.7
		Apr-July	92.2	139	76.8	66.2
0125	Monida (near)(1)	Apr-Sept	120	140	110	78.4
		Apr-July	103	140	108	73.7
	BIG HOLE RIVER					
0255	Melrose (near)	Apr-Sept	950	132	849	718
		Apr-July	885	132	785	669
	BOULDER RIVER					
0330	Boulder (near)	Apr-Sept	90.0	118	108	76.3
		Apr-July	86.2	118	103	73.0
	JEFFERSON RIVER					
0345	Sappington (at)	Apr-Sept	1260	130	1294	974
		Apr-July	1140	130	1173	875
	MADISON RIVER					
0375	West Yellowstone (near)	Apr-Sept	248	119	216	208
		Apr-July	187	119	166	157
0385	Grayling (near)(2)	Apr-Sept	510	121	474	420
		Apr-July	400	121	379	330
0410	McAllister (near)(3)	Apr-Sept	910	126	870	718
		Apr-July	730	126	712	576
	GALLATIN RIVER					
0435	Gateway (near)	Apr-Sept	570	127	551	447
		Apr-July	484	127	475	381
	BRIDGER CREEK					
0485	Bozeman (near)	Apr-Sept	25.8	130	23.5	19.9
		Apr-July	24.3	130	21.8	18.7
	HYALITE CREEK					
0500	Bozeman (near)(4)	Apr-Sept	47.0	132	45.8	35.6
		Apr-July	40.7	132	40.1	30.8
	GALLATIN RIVER					
0525	Logan (at)	Apr-Sept	640	137	621	467
		Apr-July	542	137	523	396

(1) Adjusted for storage in Lima Reservoir.
(2) Adjusted for storage in Hebgen Lake.
(3) Adjusted for storage in Hebgen and Ennis Lakes.
(4) Adjusted for storage in Middle Creek Reservoir.

* PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY FORECASTS

AS OF MARCH 1, 1965

No.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	30-YEAR AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	MISSOURI RIVER BASIN					
	RED ROCK RIVER					
0110	Lennedy Reach (at)	Apr-Sept	100	139	83.7	71.7
		Apr-July	92.2	139	76.8	66.2
0125	Monida (near)(1)	Apr-Sept	120	140	110	78.4
		Apr-July	103	140	108	73.7
	BIG HOLE RIVER					
0255	Melrose (near)	Apr-Sept	950	132	849	718
		Apr-July	885	134	765	669
	BOULDER RIVER					
0330	Boulder (near)	Apr-Sept	90.0	118	108	76.3
		Apr-July	86.2	118	103	73.0
	JEFFERSON RIVER					
0345	Sappington (at)	Apr-Sept	1260	130	1294	974
		Apr-July	1140	130	1173	875
	MADISON RIVER					
0375	West Yellowstone (near)	Apr-Sept	242	119	216	208
		Apr-July	187	119	166	157
0385	Grayling (near)(2)	Apr-Sept	510	121	474	430
		Apr-July	400	121	379	330
0410	Moaliator (near)(3)	Apr-Sept	910	126	870	718
		Apr-July	730	126	712	575
	GALLATIN RIVER					
0435	Gateway (near)	Apr-Sept	570	127	551	447
		Apr-July	494	127	479	391
	BRIDGER CREEK					
0485	Bozeman (near)	Apr-Sept	25.8	130	23.5	19.9
		Apr-July	24.3	130	21.8	18.7
	BRALEY CREEK					
0500	Bozeman (near)(4)	Apr-Sept	47.0	132	45.8	35.6
		Apr-July	40.7	132	40.1	30.8
	GALLATIN RIVER					
0525	Logan (at)	Apr-Sept	640	127	621	467
		Apr-July	542	127	529	396

(1) Adjusted for storage in Lima Reservoir.
(2) Adjusted for storage in Hebgen Lake.
(3) Adjusted for storage in Hebgen and Earth Lakes.
(4) Adjusted for storage in Middle Creek Reservoir.

WATER SUPPLY FORECASTS

AS OF MARCH 1, 1965

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	MISSOURI RIVER					
0545	Toston (at)(3)	Apr-Sept	2800	130	2694	2147
		Apr-July	2420	130	2364	1861
0908	Fort Benton (at)(5)	Apr-Sept	4280	129	4848	3319
		Apr-July	3640	129	4165	2825
1095	Virgelle (at)(6)	Apr-Sept	5220	127	6030	4116
		Apr-July	4520	127	5418	3557
1150	Zortman (near)(6)	Apr-Sept	5700	126	6697	4508
		Apr-July	4900	126	5967	3878
1320	Fort Peck Dam (below)(7)	Apr-Sept	5650	128		4422
		Apr-July	4980	128		3894
1770	Wolf Point (near)(7)	Apr-Sept	6250	128		4879
		Apr-July	5540	128		4317
3300	Williston, N.D.(nr)(8)	Apr-Sept	14700	133	13999	11059
		Apr-July	13100	133	12852	9828
	PRICKLY PEAR CREEK					
0615	Clancy (near)	Apr-Sept	25.6	117	35.5	22.0
		Apr-July	22.6	117	30.6	19.2
	SUN RIVER					
0786	Gibson Dam (at)(10)	Apr-Sept	750	123	737	610
		Apr-July	690	123	690	559
	TWO MEDICINE CREEK					
0920	Browning (near)(20)	Apr-Sept	320	118	303	271
		Apr-July	307	118	289	260
	BADGER CREEK					
0925	Browning (near)	Apr-Sept	165	115	190	143
		Apr-July	143	115	172	124
	CUT BANK CREEK					
0990	Cut Bank (at)	Apr-Sept	156	110	141	142
		Apr-July	144	110	131	131
	MARIAS RIVER					
0995	Shelby (near)(9)	Apr-Sept	750	115	814	651
		Apr-July	710	115	777	617
	SOUTH FORK MUSSELSHELL R.					
1185	Martinsdale (above)	Apr-Sept	68.0	139	59.4	48.8
		Apr-July	65.0	139	57.6	46.6
	MILK RIVER					
1350	Eastern Crossing (at)	Mar-Sept	300	110	283	272

(3) Adjusted for storage in Hebgen and Ennis Lakes.
(5) Adjusted for storage in Canyon Ferry Reservoir.
(6) Adjusted for storage in Canyon Ferry and Tiber Reservoirs.
(7) Adjusted for storage in Canyon Ferry, Tiber and Fort Peck Reservoirs.
(8) Adjusted for storage in Canyon Ferry, Tiber, Fort Peck, Buffalo Bill and Boysen Reservoirs.
(9) Adjusted for storage in Two Medicine, Four Horns, Lake Francis & Swift Reservoirs.
(10) Adjusted for storage in Gibson Reservoir and diversions.
(20) Adjusted for storage in Two Medicine Reservoir & diversions into Two Medicine Canal.

* PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY FORECASTS

AS OF MARCH 1, 1955

No.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR (1000 Acre Feet)	PERCENT AVERAGE	OBSERVED FLOW LAST YEAR*	OBSERVED FLOW AVERAGE
	MISSOURI RIVER					
0545	Toston (at)(3)	Apr-Sept	2800	130	2094	2147
		Apr-July	2420	130	2094	1861
0908	Fort Benton (at)(5)	Apr-Sept	4280	129	4018	3319
		Apr-July	3640	129	4165	2823
1095	Virgelle (at)(6)	Apr-Sept	5220	127	6030	4115
		Apr-July	4250	127	5418	3357
1150	Zortman (near)(6)	Apr-Sept	5700	126	6607	4528
		Apr-July	4860	126	5967	3878
1320	Fort Peck Dam (below)(7)	Apr-Sept	7530	128		4422
		Apr-July	4080	128		3064
1770	Wolf Point (near)(7)	Apr-Sept	6530	128		4879
		Apr-July	5540	128		3417
3300	Williston, N.D.(nr)(8)	Apr-Sept	14700	133	13999	11059
		Apr-July	13100	133	12852	9828
	PRICKLY PEAR CREEK					
0615	Clancy (near)	Apr-Sept	25.8	117	36.5	22.0
		Apr-July	22.8	117	30.6	19.4
	SUN RIVER					
0756	Gibson Dam (at)(10)	Apr-Sept	750	123	737	610
		Apr-July	690	123	660	559
	TWO MEDICINE CREEK					
0920	Browning (near)(20)	Apr-Sept	320	118	303	271
		Apr-July	307	118	289	260
	BADGER CREEK					
0925	Browning (near)	Apr-Sept	165	115	150	143
		Apr-July	143	115	172	124
	CUT BANK CREEK					
0990	Cut Bank (at)	Apr-Sept	156	110	141	142
		Apr-July	144	110	131	131
	MARIAS RIVER					
0995	Shelby (near)(9)	Apr-Sept	750	125	814	602
		Apr-July	710	125	777	567
	SOUTH FORK MUSSELSHELL R.					
1185	Martinsdale (above)	Apr-Sept	62.0	139	59.4	44.3
		Apr-July	55.0	139	57.5	40.0
	MILK RIVER					
1350	Eastern Crossing (at)	May-Sept	700	110	639	636

(3) Adjusted for storage in Hebgen and Ennis Lakes.
(5) Adjusted for storage in Canyon Ferry Reservoir.
(6) Adjusted for storage in Canyon Ferry and Tiber Reservoirs.
(7) Adjusted for storage in Canyon Ferry, Tiber and Fort Peck Reservoirs.
(8) Adjusted for storage in Canyon Ferry, Tiber, Fort Peck, Buffalo Rapids and Nelson Reservoirs.
(9) Adjusted for storage in Two Medicine, Four Horns, Lake Francis & Swift Reservoirs
(10) Adjusted for storage in Gibson Reservoir and diversions.
(20) Adjusted for storage in Two Medicine Reservoir & diversions into Two Medicine Canal.

* PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

WATER SUPPLY FORECASTS

AS OF MARCH 1, 1965

(1000 Acre Feet)

NO.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	PERCENT AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE
	YELLOWSTONE RIVER					
1915	Corwin Springs (at)	Apr-Sept	2320	123	2128	1877
		Apr-July	1940	123	1765	1572
1925	Livingston (near)	Apr-Sept	2660	125	2392	2127
		Apr-July	2220	125	1972	1770
2145	Billings	Apr-Sept	5100	130	4400	3913
		Apr-July	4380	130	3814	3362
3090	Miles City (at)(12)	Apr-Sept	7800	135		5778
		Apr-July	6850	135		5080
3295	Sidney (near)(12)	Apr-Sept	8000	136		5850
		Apr-July	7150	136		5230
	SHIELDS RIVER					
1935	Clyde Park (at)	Apr-Sept	145	146	133	99.0
		Apr-July	135	146	121	92.2
	BOULDER RIVER					
2000	Big Timber (at)	Apr-Sept	470	137	375	343
		Apr-July	440	137	351	321
	STILLWATER RIVER					
2050	Absarokee (near)(11)	Apr-Sept	750	136	553	552
		Apr-July	630	136	486	465
	CLARKS FORK RIVER					
2075	Chance (at)	Apr-Sept	700	120	602	583
		Apr-July	635	120	561	528
2085	Edgar (at)	Apr-Sept	735	120	651	609
		Apr-July	650	120	603	538
	ROCK CREEK					
2095	Red Lodge (near)	Apr-Sept	134	130	96.7	103
		Apr-July	103	130	78.7	79.6

(11) Adjusted for storage in Mystic Lake.
(12) Adjusted for storage in Buffalo Bill and Boysen Reservoirs.

* PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD).

WATER SUPPLY FORECASTS

AS OF MARCH 1, 1965

(1000 Acre Feet)

No.	RIVER AND FORECAST POINT	FORECAST PERIOD	FORECAST THIS YEAR	FORECAST AVERAGE	MEASURED FLOW LAST YEAR*	MEASURED FLOW AVERAGE*
	YELLOWSTONE RIVER					
1915	Corwin Springs (at)	Apr-Sept	2320	123	2128	1877
		Apr-July	1940	123	1765	1572
1925	Livingston (near)	Apr-Sept	2660	125	2392	2127
		Apr-July	2220	125	1972	1770
2145	Billings	Apr-Sept	5100	130	4200	3913
		Apr-July	4380	130	3814	3562
3090	Miles City (at)(12)	Apr-Sept	7300	135		5778
		Apr-July	6850	135		5080
3295	Sidney (near)(12)	Apr-Sept	8000	136		5850
		Apr-July	7150	136		5230
	SHERIDAN RIVER					
1935	Clyde Park (at)	Apr-Sept	145	146	133	99.0
		Apr-July	135	146	121	92.2
	BOULDER RIVER					
2000	Big Timber (at)	Apr-Sept	470	137	375	343
		Apr-July	440	137	351	321
	STILLWATER RIVER					
2050	Absarokee (near)(11)	Apr-Sept	750	136	553	552
		Apr-July	630	136	486	469
	CLARKS FORK RIVER					
2075	Chance (at)	Apr-Sept	700	120	602	583
		Apr-July	635	120	561	528
2085	Edgar (at)	Apr-Sept	735	120	651	609
		Apr-July	650	120	603	538
	ROCK CREEK					
2095	Red Lodge (near)	Apr-Sept	134	130	96.7	103
		Apr-July	103	130	78.7	79.6

(11) Adjusted for storage in Mystic Lake.
(12) Adjusted for storage in Buffalo Bill and Boysen Reservoirs.

*PROVISIONAL DATA FURNISHED BY U.S. GEOLOGICAL SURVEY

SNOW SURVEY DATA

AS OF MARCH 1, 1965

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	
						LAST YEAR	AVERAGE
COLUMBIA RIVER BASIN							
KOOTENAI RIVER							
15B11	Baree Creek	5500	3/1	122	45.8	31.8	-
15B15	Baree Trail	3800	3/1	34	12.2	-	-
14A04	Brush Creek	5000	3/1	38	13.2	11.8	12.7*
BC 10	Fernie	3500	2/26	36	12.6	8.5	9.0
BC 12A	Field	4200	2/28	30	8.2	4.2	5.8
BC 11	Glacier	4100	3/1	72	21.7	23.4	24.0*
14A11	Graves Creek	4300	2/25	56	19.9	-	-
BC 43	Gray Creek	5100	2/28	61	16.9	14.7	16.7*
BC 33	Kicking Horse	5400	2/28	58	16.4	11.8	13.3
BC 20B	Kimberley	3800	3/1	32	10.5	6.7	8.4
BC 32	Marble Canyon	5000	3/1	59	13.7	11.2	13.5
BC 10B	Morrissey Ridge	6100	3/2	84	32.5	-	-
BC 10A	New Fernie	4100	2/26	53	19.1	14.0	13.2*
15A01	Red Mountain	6000	2/26	60	20.0	12.6	18.0
BC 8A	Sinclair Pass	4500	3/1	26	5.1	4.3	5.8*
BC 20A	Sullivan Mine	5100	2/26	43	12.5	9.9	13.4
BC 41	Upper Elk River	4400	2/22	27	9.0	-	7.9
14A07	Weasel Divide	5450	2/25	92	35.4	30.7	30.4*
FLATHEAD RIVER							
14B03	Bassoo Peak	5150	2/23	38	10.0	8.6	11.1*
13A11	Beaver Lake	5900	3/1	79	25.7	17.9	-
13B03	Big Creek	6750	2/25	121	48.4	35.6	38.5
13A17	Camp Misery	6400	2/24	140	54.2	37.0	-
13A02	Desert Mountain	5600	2/23	56	20.0	12.2	14.1*
13B04	Fatty Creek	5500	2/25	69	23.4	20.4	-
14A09	Griffin Creek Divide	5150	2/24	40	12.6	10.0	12.4*
13B12	Gunsight Lake	6300	3/2	123	45.7	30.2	-
14A03	Hell Roaring Divide	5770	2/26	94	35.3	23.8	26.8*
13B13	Holbrook	4530	3/1	38	12.7	9.8	10.2*
14A06	Kishenehn	3890	3/1	40	13.2	8.1	9.9
14A05	Logan Creek	4300	3/1	32	8.8	7.4	8.8*
13A05	Marias Pass	5250	2/25	65	21.0	12.0	17.3
13A16	Mineral Creek	4000	2/28	70	26.1	18.4	19.8
13B07	North Fork Jocko	6330	2/26	130	49.8	41.0	39.8
13B02	Spotted Bear Mountain	7000	3/2	53	19.7	11.3	14.6
13A10	Strawberry Lake	5600	3/4	125	48.6	32.2	35.3*
13B01	Trinkus Lake	6500	3/4	131	48.9	35.3	36.3*
13B11	Twin Creeks	3580	3/2	40	14.6	12.2	12.4*
13B05	Upper Holland Lake	7000	3/1	117	39.1	28.0	29.8*

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MARCH 1, 1965

SNOW COURSE			CURRENT DATA			PAST RECORD	
No.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	LAST YEAR / PERCENT

COLUMBIA RIVER BASIN

KOOTENAI RIVER

1SB11	Barrs Creek	5500	3/1	122	45.8	31.8	-
1SB15	Barrs Trail	3800	3/1	34	12.2	-	-
1AA04	Brush Creek	5000	3/1	39	13.2	11.8	12.7*
BC 10	Fernie	3500	2/26	36	12.6	8.3	9.0
BC 12A	Field	4200	2/28	30	8.2	4.2	5.8
BC 11	Glacier	4100	3/1	72	21.7	23.4	24.0*
1AA11	Graves Creek	4300	2/25	56	19.9	-	-
BC 43	Gray Creek	5100	2/28	61	16.9	14.7	16.7*
BC 33	Kicking Horse	5400	2/28	58	16.4	11.8	12.3
BC 20B	Kimberley	3600	3/1	32	10.5	6.7	8.4
BC 32	Marble Canyon	5000	3/1	59	23.7	11.4	13.5
BC 10B	Morrissey Ridge	6100	3/2	84	32.5	-	-
BC 10A	New Fernie	4100	2/26	53	19.1	14.0	13.2*
1SA01	Red Mountain	6000	2/26	60	20.0	12.6	18.0
BC 8A	Stanley Pass	4500	3/1	26	5.1	4.3	3.8*
BC 20A	Sullivan Mine	5100	2/26	43	12.5	9.8	13.4
BC 41	Upper Elk River	4400	2/22	27	9.0	-	7.9
1AA07	Wessel Divide	5450	2/25	92	35.4	30.7	30.4*

FLATHEAD RIVER

1AB03	Beacon Peak	5150	2/23	38	10.0	8.6	11.1*
1SA11	Beaver Lake	5900	3/1	79	25.7	17.9	-
1SB05	Big Creek	6750	2/25	121	48.4	35.6	36.5
1SA17	Camp Misery	6400	2/24	140	54.2	37.0	-
1SA02	Dewert Mountain	5600	2/23	56	20.0	12.2	14.1*
1SB04	Patty Creek	5500	2/25	99	23.4	20.4	-
1AA09	Griffin Creek Divide	5150	2/24	40	12.6	10.0	12.4*
1SB12	Gunsight Lake	6300	3/2	123	45.7	30.2	-
1AA03	Hail Roaring Divide	5770	2/26	94	35.3	23.8	26.8*
1SB13	Holborn	4550	3/1	39	12.7	9.6	10.2*
1AA06	Kishenehn	3990	3/1	40	13.2	8.1	9.9
1AA05	Logan Creek	4300	3/1	32	8.8	7.4	8.8*
1SA08	Marias Pass	5250	2/25	65	21.0	12.0	17.3
1SA16	Mineral Creek	4000	2/26	70	26.1	18.4	19.8
1SB07	North Fork Cooke	6330	2/26	130	49.8	41.0	39.8
1SB02	Spotted Bear Mountain	7000	3/2	53	19.7	11.3	14.6
1SA10	Strawberry Lake	5600	3/1	125	42.4	32.2	35.3*
1SB01	Trinkus Lake	6500	3/1	131	48.9	34.3	36.3*
1SB11	Twin Creeks	3980	3/2	40	14.6	12.2	12.4*
1SB05	Upper Holland Lake	7000	3/1	112	39.1	28.0	29.8*

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MARCH 1, 1965

(inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
CLARK FORK RIVER							
13C13	Black Pine	7100	2/25	48	16.4	12.6	11.3*
12B10	Copper Creek	5700	2/23	50	16.8	13.1	-
12B11	Cotter Mine	6250	2/23	56	20.0	13.6	-
13B10	Coyote Hill	4200	2/26	43	13.4	8.7	10.2
13C09	El Dorado Mine	7800	2/23	74	25.2	18.4	17.6*
13C11	Fred Burr Pass	8000	2/26	85	33.0	20.3	23.8*
13C10	Gold Creek Lake	7200	2/23	58	18.4	14.4	13.4*
14C10	Heart Lake Trail	4800	2/25	68	23.8	-	-
15C01	Hoodoo Creek	6200	2/25	133	52.3	37.4	45.3*
13C04	Intergaard	6450	3/1	33	10.0	7.2	7.2
15B02	Lookout	5250	2/25	97	33.5	31.7	34.8*
13C21	Lubrecht Forest No. 3	5450	2/27	28	8.2	8.0	7.4*
13C22	Lubrecht Forest No. 4	4650	2/27	15	4.2	4.8	3.9*
13C08	Lubrecht Forest No. 6	4040	2/27	16	5.0	5.4	4.6*
13C12	Red Lion	7100	2/26	62	21.8	13.0	13.8*
13C03	Skalkaho Summit	7260	2/25	86	32.6	20.5	22.5*
13C02	Slide Rock Mountain	7100	2/24	54	17.6	13.0	12.6*
13C05	Southern Cross	6500	3/1	28	7.7	7.2	5.6
13C18	Spring Gulch	6000	2/28	57	16.0	11.1	10.5*
13C07	Storm Lake	7780	2/26	48	16.4	11.4	11.7*
13C06	Stuart Mill	6500	3/1	28	7.8	7.3	5.9
13C01	Stuart Mountain	7400	2/28	92	32.7	24.5	26.5*
14B01	TV Mountain	6800	2/26	62	21.7	14.0	14.9*
BITTERROOT RIVER							
13C16	Ambrose	6480	2/24	48	14.8	12.5	12.1*
13D01	East Fork R.S.	5400	2/26	32	9.4	7.0	7.1*
13D02	Gibbons Pass	7100	2/25	80	27.5	18.8	21.0
14C05	Lolo Pass	5230	2/25	94	34.0	28.4	32.2*
14C07	Lost Horse	5940	3/1	102	36.1	30.9	30.3*
13D16	Moose Creek	6200	2/25	65	21.0	16.2	14.9
14D02	Nez Perce Camp	5580	2/23	63	18.4	16.0	12.8*
14D01	Nez Perce Pass	6570	2/23	69	20.8	16.0	14.8*
13D22	Saddle Mountain	7940	2/17	86	30.0	-	-
14C04	Savage Pass	6600	2/26	80	29.4	22.4	25.0*
14C08	Twin Lakes	6510	3/1	133	47.0	36.4	39.5*

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MARCH 1, 1965

SNOW COURSE		CURRENT DATA			POST RECORD	
No.	Name	Elevation	Date of Survey	Snow Depth	Date Depth	Water Content
						Last Year / Average

CLEAR CREEK BASIN

13013	Black Pine	7100	2/25	42	16.4	12.6	11.3*
12810	Copper Creek	5700	2/23	50	16.8	13.1	-
13811	Cotton Mine	6240	2/23	56	20.0	13.6	-
13810	Coyote Hill	4200	2/26	43	13.4	8.7	10.3
13009	El Dorado Mine	7500	2/23	74	25.2	19.4	17.6*
13011	Fred Burr Pass	8000	2/26	95	33.0	20.3	23.8*
13010	Gold Creek Lake	7200	2/23	58	16.4	14.4	13.4*
14010	Heart Lake Trail	4800	2/25	68	23.8	-	-
15001	Hoodoo Creek	6200	2/25	133	52.3	37.4	45.3*
13004	Intergrand	6450	3/1	33	10.0	7.2	7.2
15802	Lookout	5250	2/28	97	33.5	31.7	34.8*
13021	Lubrecht Forest No. 3	5450	2/27	29	9.2	8.0	7.4*
13022	Lubrecht Forest No. 4	4650	2/27	15	4.2	4.9	3.9*
13008	Lubrecht Forest No. 6	4040	2/27	16	5.0	5.4	4.8*
13012	Red Lion	7100	2/26	62	21.0	13.0	13.8*
13009	Skalkaho Summit	7260	2/25	96	32.0	20.4	22.5*
13002	Slide Rock Mountain	7100	2/24	54	17.6	13.0	12.6*
13005	Southern Cross	6500	3/1	28	7.7	7.2	5.8*
13018	Spring Gulch	6000	2/24	37	16.0	11.1	10.8*
13007	Storm Lake	7750	2/26	48	16.4	11.4	11.7*
13006	Stuart Mill	6500	3/1	28	7.8	7.3	5.8
13001	Stuart Mountain	7400	2/28	92	32.7	25.5	25.4*
14801	TV Mountain	6800	2/26	62	23.7	14.0	14.9*

BITTERROOT RIVER

13016	Ambrose	6490	2/24	42	14.8	12.5	12.4*
13001	East Fork R.B.	5100	2/26	32	9.2	7.0	7.1*
13002	Gibbons Pass	7100	2/25	80	27.5	18.8	21.0
14005	Lolo Pass	5220	2/25	74	24.0	24.4	20.2*
14007	Lost Horse	5940	3/1	102	36.1	30.9	30.3*
13016	Moose Creek	6200	2/25	65	21.0	16.2	16.9
14002	Nez Perce Camp	5580	2/23	63	18.4	16.0	14.8*
14001	Nez Perce Pass	6570	2/23	80	30.8	18.0	18.4*
13002	Saddle Mountain	7940	2/17	85	30.4	-	-
14004	Savage Pass	6600	2/26	80	29.4	22.4	25.0*
14008	Twin Lakes	6510	3/1	122	47.0	36.4	37.7*

NOTE: ALL AVERAGES BASED ON 1956-1962 (10 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MARCH 1, 1965

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
			MISSOURI RIVER BASIN				
BEAVERHEAD RIVER							
13D10	Bloody Dick	7600	2/24	47	15.4	8.6	9.6
12E03	Camp Creek	6800	2/26	40	13.1	5.7	8.7
12D04	Carter Creek	7400	2/28	23	4.4	3.6	-
13D15	Elk Horn Springs	7800	2/26	44	13.4	7.1	8.8
13D09	Gold Stone	8100	2/24	57	19.7	10.8	12.4
11E12	Kilgore	6200	2/26	35	11.9	6.9	8.8
11E04	Lakeview Canyon	6930	2/24	52	18.2	7.0	9.6
11E03	Lakeview Ridge	7400	2/24	46	16.2	6.6	8.1
13E01	Lemhi Pass	7480	2/23	46	14.6	6.8	7.1
13E02	Trail Creek	7090	2/23	41	12.2	5.7	6.4
12E01	White Pine Ridge	8850	3/2	25	6.5	3.7	4.4
RUBY RIVER							
11D08	Clover Meadow	8600	3/1	62	21.7	12.6	-
12E07	Divide	7900	3/2	48	15.3	7.8	-
12E06	Notch	8500	3/2	53	17.4	10.8	-
BIG HOLE RIVER							
13D20	Abundance Lake	8800	3/1	67	24.1	15.0	-
13D19	Darkhorse Lake	8600	3/2	89	34.6	22.1	-
13D21	Foolhen	8280	3/1	62	22.4	12.4	-
13D08	Jahnke Creek	7340	2/24	42	13.0	7.8	8.8
JEFFERSON RIVER							
12C07	Berry Meadow	7300	3/1	29	8.0	7.2	-
12C06	Picnic Grounds	6500	3/1	20	4.4	4.2	4.2*
12D01	Pipestone Pass	7200	2/26	20	5.2	4.0	4.5

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MARCH 1, 1965

SNOW COURSE		CURRENT DATA			PAST RECORDS		
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	
					RATIO TO AVERAGE	LAST YEAR	AVERAGE

MISSOURI RIVER BASIN

BEAVERHEAD RIVER

13D10	Bloody Dick	7600	3/24	47	15.4	8.6	9.6
12E03	Carp Creek	6800	2/28	40	13.1	5.7	8.7
12D04	Garfer Creek	7400	2/28	23	4.4	3.6	-
13D15	Elk Horn Springs	7800	3/26	44	13.4	7.1	8.3
13D09	Gold Stone	8100	3/24	57	19.7	10.8	12.4
11E12	Kitgore	6500	3/26	35	12.9	8.9	8.3
11E04	Lakeview Canyon	6950	3/24	52	18.2	7.0	9.6
11E03	Lakeview Ridge	7400	3/24	46	16.2	6.6	8.1
13E01	Leadi Pass	7250	3/23	46	14.6	6.8	7.1
13E02	Trail Creek	7040	3/23	41	12.2	5.7	6.4
12E01	White Pine Ridge	8850	3/2	25	6.5	3.7	6.4

RUBY RIVER

11D08	Clover Meadow	8000	3/1	62	21.7	12.6	-
12E07	Divide	7900	3/2	48	15.3	7.8	-
12E06	Webb	8500	3/2	53	17.4	10.8	-

BIG HOLE RIVER

13D20	Ahnadance Lake	8800	3/1	67	24.1	13.0	-
13D19	Darkhorse Lake	8500	3/2	89	34.6	22.1	-
13D21	Poolman	8280	3/1	64	22.4	12.4	-
13D08	Yabuke Creek	7340	3/24	42	13.0	7.8	8.4

JEFFERSON RIVER

12D07	Terry Meadow	7700	3/1	29	8.0	7.2	-
12C06	Pionio Grounds	6500	3/1	26	4.4	5.2	4.2*
12D01	Pipestone Pass	7200	2/26	20	4.2	4.0	4.5

NOTE: ALL AVERAGES BASED ON 1958-1962 (10 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MARCH 1, 1965

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
MADISON RIVER							
11E09	Big Springs	6500	2/24	69	24.6	14.9	19.6
11D07	Call Road	8050	3/1	43	12.8	9.0	-
11D06	Crockett Lake	8400	3/1	42	12.6	8.6	-
11E05	Hebgen Dam	6550	2/25	47	14.2	9.8	10.8
11E10	Island Park	6315	2/24	60	20.4	11.1	15.3
11D05	Jack Creek	7500	2/26	23	6.4	5.2	-
10E02	Norris Basin	7500	3/1	48	14.1	8.4	9.0*
11D03	North Meadow	7500	2/25	38	11.4	5.0	-
11E08	Valley View	6500	2/24	64	24.0	14.8	13.2
11E07	West Yellowstone	6700	2/25	46	15.0	8.3	10.6
GALLATIN RIVER							
10D14	Arch Falls	7350	2/27	46	14.8	10.4	-
11D09	Bear Basin	8150	3/2	67	22.6	17.8	-
10D04	Devil's Slide	8100	2/27	73	26.3	20.2	17.4
10D03	Hood Meadow	6600	2/27	39	11.6	8.9	7.6
11D10	Little Park	7400	3/2	59	18.6	14.2	-
10D01	New World	6700	2/26	40	11.6	11.4	8.6
11E06	Twenty-One Mile	7150	3/2	70	27.0	14.1	15.8
MISSOURI RIVER (Main Stem)							
11C01	Boulder Mountain	7950	2/23	54	17.9	16.2	-
12C05	Chessman Reservoir	6200	3/2	16	3.8	6.3	4.0
10C07	Elk Peak	8000	2/24	60	19.5	15.6	-
10C02	Grasshopper	7000	2/24	26	6.6	7.0	4.3
10C01	Kings Hill	7500	2/28	48	15.3	12.7	11.0
9A01	Rocky Boy	5200	2/26	18	4.6	4.2	4.2
12C01	Stemple Pass	6900	3/3	42	11.9	10.0	9.2
12C02	Ten Mile Lower	6250	3/2	30	7.7	8.0	6.3
12C03	Ten Mile Middle	6800	3/1	45	12.1	10.7	9.1
12C04	Ten Mile Upper	8000	3/1	51	16.3	14.4	11.7
SUN-TETON-MARIAS RIVERS							
13A15	Badger Pass	6900	3/1	108	38.6	29.4	-
12B06	Cabin Creek	5400	3/1	32	9.7	4.9	6.8*
12B09	Five-Bull	5600	2/24	33	9.8	5.4	6.1*
12A01	Freight Creek	6000	2/25	55	20.4	11.2	14.5

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MARCH 1, 1965

SNOW COURSE			CURRENT DATA			PAST RECORD	
NO.	NAME	ELEVATION	DATE OF SURVEY	DEPTH OF SNOW	WATER CONTENT	WATER CONTENT	LAST YEAR

MADISON RIVER

11E09	Big Springs	6500	2/24	69	24.6	14.9	19.6
11D07	Cecil Road	8050	3/1	43	12.8	9.0	-
11D06	Crockett Lake	8400	3/1	42	12.6	8.6	-
11E05	Hebgen Dam	6950	2/25	47	14.2	9.8	10.8
11E10	Island Park	6315	2/24	60	20.4	11.1	15.3
11D05	Jack Creek	7500	2/26	23	6.4	3.2	-
10E02	Norris Basin	7500	3/1	46	14.1	8.4	9.0*
11D03	North Meadow	7500	2/25	38	11.4	5.0	-
11E08	Valley View	6500	2/24	64	24.0	14.8	13.2
11E07	West Yellowstone	6700	2/25	46	15.0	8.3	10.6

GALLATIN RIVER

10D14	Arch Falls	7350	2/27	46	14.8	10.4	-
11D09	Bear Basin	8450	3/2	67	22.6	17.8	-
10D04	Devil's Slide	8100	2/27	73	26.3	20.2	17.4
10D03	Hood Meadow	6600	2/27	39	11.6	8.9	7.6
11D10	Little Park	7100	3/2	59	18.6	14.2	-
10D01	New World	6700	2/26	40	11.6	11.4	8.6
11E06	Twenty-One Mile	7150	3/2	70	27.0	14.1	15.8

MISSOURI RIVER (Main Stem)

11C01	Boulder Mountain	7950	2/23	54	17.9	16.2	-
12C05	Canyon Reservoir	6200	3/2	16	3.8	6.3	4.0
10C07	Elk Peak	8000	2/24	60	19.5	15.6	-
10C02	Grasshopper	7000	2/24	26	6.6	7.0	4.3
10D01	Kings Hill	7500	2/26	48	15.3	12.7	11.0
9A01	Rocky Boy	2200	2/26	18	4.6	4.2	4.2
12C01	Steeple Pass	6900	3/3	42	11.9	10.0	9.2
12C02	Ten Mile Lower	6250	3/2	30	7.7	8.0	6.3
12C03	Ten Mile Middle	6800	3/1	45	12.3	10.7	9.1
12C04	Ten Mile Upper	8000	3/1	51	16.3	14.4	11.7

SUN-TETON-MARIAS RIVERS

13A15	Badger Pass	6900	3/1	108	38.6	29.4	-
12B06	Cabin Creek	5400	3/1	32	9.7	4.9	6.8*
12B09	Five-Bull	5600	2/24	33	9.8	5.4	6.1*
12A01	Freight Creek	6000	2/25	55	20.4	11.2	14.5

NOTE: ALL AVERAGES BASED ON 1958-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MARCH 1, 1965

(Inches)

SNOW COURSE			CURRENT DATA			PAST RECORD	
						WATER CONTENT	
NO.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE
SUN-TETON-MARIAS RIVERS - cont'd							
12B07	Goat Mountain	7000	2/28	50	13.5	9.8	10.6
12B01	West Fork	6000	2/25	56	21.8	9.4	13.4*
12B04	Wrong Creek	5700	3/1	56	17.8	13.5	14.5*
12B03	Wrong Ridge	6800	3/1	73	26.0	17.3	19.6*
JUDITH RIVER							
9C01	Crystal Lake	6100	3/3	44	13.7	14.4	10.5
10C06	Spur Park	8000	2/25	69	23.4	18.8	-
MILK RIVER (Cypress Hills)							
10AA2	Cress Day B	3450	3/1	8	2.8	1.2	1.3*
9AA1	Cypress Park C	4000	3/2	7	1.9	4.4	4.1*
10AA1	Elkwater Lake A	4100	3/1	7	1.9	1.9	2.0*
7AA1	Val Marie D	2700	3/3	11	3.0	0.1	1.1*
UPPER YELLOWSTONE RIVER							
10C05	Bald Ridge	7500	3/1	48	15.6	11.4	9.2*
9D01	Camp Senia	7890	3/2	28	5.8	5.2	4.8*
10E03	Canyon	7750	2/28	65	23.4	12.4	13.1
10D05	Crevice Mountain	8400	3/1	43	11.8	8.1	7.5
10E06	East Entrance	7000	3/1	40	12.1	8.3	10.4*
9D05	Grizzly Peak	8400	3/1	60	16.8	9.7	-
10D06	Independence	8000	2/28	69	21.6	15.8	15.6*
10E04	Lake Camp	7850	2/28	48	13.2	6.3	9.0
9E01	Lodgepole	8200	3/1	39	9.9	9.1	8.6*
10E01	Lupine Creek	7300	3/1	46	14.2	8.2	9.5
10D12	Monument Peak	9000	2/28	91	33.6	21.8	18.1*
10D07	Northeast Entrance	7400	2/27	41	13.1	7.4	7.5
10C03	Porcupine R.S.	6500	3/1	33	9.3	8.4	6.3
10D10	Sacajawea	6550	2/26	48	16.4	11.2	11.1*
10C08	South Fork Shields	8400	3/1	81	29.4	-	-
10E05	Sylvan Pass	7100	3/1	52	16.8	10.1	12.6
10E07	Thumb Divide	7900	2/24	79	29.3	14.0	20.0
9D04	Timberline Creek	8850	3/2	61	19.5	12.2	10.9*
9D02	West Rosebud	7500	3/2	52	16.9	6.5	-

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). *ADJUSTED AVERAGE

SNOW SURVEY DATA

AS OF MARCH 1, 1965

SNOW COURSE			CURRENT DATA			PAST RECORD	
No.	NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH	WATER CONTENT	WATER CONTENT	% OF YEAR'S AVERAGE

BEAR-TAYLOR-MARIAS RIVERS - cont'd

12B07	Goat Mountain	7000	2/28	50	13.5	9.8	10.9
12B01	West Fork	6000	2/25	56	23.8	9.4	13.4*
12B04	Wrong Creek	5700	3/1	56	17.8	13.5	14.9*
12B03	Wrong Ridge	6800	3/1	73	26.0	17.3	19.6*

JUDITH RIVER

9C01	Crystal Lake	6100	3/3	44	13.7	14.4	10.5
10C06	Spur Park	6600	2/25	69	23.4	15.8	-

MILK RIVER (Cypress Hills)

10A42	Cypress Dev B	3450	3/1	8	2.8	3.2	1.3*
9A41	Cypress Park D	4000	3/2	7	1.9	4.4	4.1*
10A41	Elsmere Lake A	4300	3/1	7	1.9	1.8	2.0*
7A41	Val Marie D	2700	3/3	11	3.0	0.1	1.1*

UPPER YELLOWSTONE RIVER

10C05	Bald Ridge	7500	3/1	48	15.5	11.4	9.2*
9D01	Camp Sacia	7850	3/2	28	8.4	5.2	4.8*
10E03	Canyon	7750	2/28	65	23.4	12.4	11.1
10D05	Cowrie Mountain	8400	3/1	43	11.8	8.1	7.8
10E06	East Entrance	7000	3/1	40	12.1	8.3	10.4*
9D05	Grizzly Peak	8400	3/1	80	16.8	9.7	-
10D06	Independence	8000	2/28	69	21.6	15.3	15.6*
10E04	Lake Camp	7850	2/28	45	13.2	6.3	9.0
9E01	Lodgepole	6200	3/1	39	9.9	9.1	8.6*
10E01	Lupine Creek	7300	3/1	46	14.2	8.2	9.5
10D12	Monument Peak	9000	2/28	91	33.6	21.8	18.1*
10D07	Northeast Entrance	7400	2/27	41	13.1	7.4	7.5
10C03	Portuguise R.S.	6500	3/1	33	9.3	8.4	6.3
10D10	Seasleaves	6950	2/26	48	16.1	11.2	11.1*
10C08	South Fork Bridge	8400	3/1	81	29.4	-	-
10E05	Sylvan Pass	7100	3/1	52	16.8	10.1	12.6
10E07	Thumb Divide	7900	2/24	79	29.3	14.0	20.0
9D04	Timberline Creek	8250	3/2	61	19.5	12.2	10.9*
9D02	West Rosebud	7500	3/3	52	16.9	6.5	-

NOTE: ALL AVERAGES BASED ON 1956-1962 10% YEAR PERIOD. *ADJUSTED AVERAGE

SOIL MOISTURE DATA

AS OF MARCH 1, 1965

(Inches)

SOIL MOISTURE STATION			SOIL PROFILE		CURRENT DATA		PAST RECORD	
NO.	NAME	ELEVATION	DEPTH	FIELD CAPACITY	DATE OF SURVEY	SOIL MOISTURE	LAST YEAR	**AVERAGE
			COLUMBIA RIVER BASIN					
Kootenai								
15B15M	Baree Trail	3800	48	7.5	3/2	6.3	-	-
14A10M	Murphy Lake R.S.	3000	48	22.6	3/1	21.8	-	-
15A02M	Raven R.S.	3050	48	23.0	3/3	21.9	-	-
Flathead								
13A02M	Desert Mountain	5600	54	8.4	2/23	7.5	5.8	7.0
13A05M	Marias Pass	5250	54	6.5	3/1	5.8	4.4	5.3
Clark Fork								
13C15M	Georgetown Lake	6450	48	9.0*	2/26	2.8	2.5	-
13B19M	Seeley Lake	4030	48	11.9*			1.9	-
13C02M	Skalkaho Summit	7260	48	10.8	2/25	8.9	-	-
Bitterroot								
13D18M	Gibbons Pass	7100	48	7.1	2/26	5.5	5.5	-
14C05M	Lolo Pass	5250	48	10.6*	2/25	7.4	5.3	-
			MISSOURI RIVER BASIN					
Beaverhead								
11E13M	Lakeview	6700	48	15.3	3/3	5.9	8.2	-
Madison								
10D04M	Red Bluff	4800	40	4.7	3/4	2.3	1.9	-
Gallatin								
11D02M	College Site	4856	54	14.5	3/2	10.0	6.9	9.2
11E06M	Twenty-One Mile	7150	48	8.8	2/28	1.5	3.8	-
Missouri Main Stem								
10C01M	Kings Hill	7420	48	11.8	2/25	7.8	7.6	-
12C08M	Stemple Pass	6350	48	5.9	2/25	4.2	3.9	-
Yellowstone								
10D11M	Battle Ridge	6020	48	17.6*	3/1	15.6	9.3	-
10D07M	Northeast Entrance	7350	48	9.4	2/27	5.9	7.8	-

**AVERAGE FOR PERIOD OF RECORD *Revised

SOIL MOISTURE DATA

AS OF MARCH 1, 1965

No.	Name	Elevation	Survey	Field Capacity	Date of Survey	Soil Moisture	Last Year
	SOIL MOISTURE STATION			SOIL PROFILE	CURRENT DATA		PAST RECORD

COLUMBIA RIVER BASIN

Kootenai

15B15M	Baree Trail	3800	4B	7.5	3/2	6.3	-	-
14A20M	Murphy Lake R.S.	5000	4B	22.6	3/1	21.8	-	-
15A02M	Raven R.S.	3050	4B	23.0	3/3	21.9	-	-

Flathead

13A02M	Desert Mountain	5800	5A	8.4	2/23	7.5	5.8	7.0
13A05M	Marias Pass	5250	5A	6.5	3/1	5.8	4.4	5.3

Clark Fork

13C13M	Georgetown Lake	6450	4B	9.0*	2/26	7.8	2.5	-
13B15M	Seeley Lake	4030	4B	11.9*			1.9	-
13D02M	Shelpho Summit	7260	4B	10.8	2/25	8.9	-	-

Blitterroot

13B10M	Gibbons Pass	7100	4B	7.1	2/26	5.5	5.5	-
12A05M	Lolo Pass	5250	4B	10.6*	2/25	7.4	5.3	-

MISSOURI RIVER BASIN

Beaverhead

11C13M	Lakeview	6700	4B	15.3	3/3	5.9	8.2	-

Madison

10D04M	Red Bluff	4800	4C	4.7	3/4	2.3	1.9	-

Gallatin

11D02M	College Site	4550	5A	14.5	3/2	10.0	6.9	9.2
11E06M	Twenty-One Mile	7150	4B	8.8	2/28	1.5	3.8	-

Missouri Main Stem

10C01M	Kings Hill	7420	4B	11.9	2/25	7.8	7.6	-
12D09M	Steeple Pass	6350	4B	5.9	2/25	4.2	3.9	-

Yellowstone

10D01M	Battle Ridge	6020	4B	17.6*	3/1	15.6	9.3	-
10D07M	Northeast Entrance	7350	4B	9.4	2/27	5.9	7.8	-

*Revised

**AVERAGE FOR PERIOD OF RECORD

RESERVOIR STORAGE DATA

AS OF FEBRUARY 28, 1965

(1000 Acre Feet)

BASIN	RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVERAGE
COLUMBIA RIVER BASIN					
Flathead	Hungry Horse	3,428.0	2,370.0	2,297.0	2,436.3**
	Flathead Lake	1,791.0	1,143.0	1,161.0	844.6
	Camas 1/	45.2	20.3	18.7	32.2
	Mission Valley 2/	100.3	39.3	19.6	34.5
Clark Fork	Georgetown Lake	31.0	26.9	27.4	23.2
	Noxon Rapids	334.6		282.9	-
Bitterroot	Como	34.9	15.4	7.8	11.8
	Painted Rocks	31.7		21.8	13.5**
MISSOURI RIVER BASIN					
Beaverhead	Clark Canyon	255.6	74.2	-	-
	Lima	84.0	45.7	-	26.1
Ruby	Ruby	38.8	-	-	23.0**
Madison	Hebgen Lake	384.8	220.8	211.3	179.1
	Ennis Lake	41.0	33.5	39.2	37.3
Gallatin	Middle Creek	8.0	3.9	3.0	3.6**
Missouri	Canyon Ferry	2,043.0	1,763.0	1,737.0	1,514.9**
	Hauser & Helena	61.9	61.3	56.2	53.9
	Lake Helena	10.4	10.2	8.4	7.8
	Holter Lake	81.9	40.1	22.5	50.6
	Smith River	10.7	8.7	7.6	5.6**
	Ackley Lake	5.8		-	3.8
	Durand	7.0	6.3	4.2	4.2**
	Martinsdale	23.1	7.5	8.0	8.1**
	Deadman's Basin	72.2	48.0	51.6	39.8**
	Fort Peck	19,410.0	15,220.0	11,550.0	10,595.1
Sun	Gibson	105.0	48.0	17.3	58.5
	Willow Creek	32.3	15.8	21.1	18.4
	Pishkun	32.0	17.4	17.2	19.7
Marias	Lower Two Medicine	16.6	-	-	0.0
	Four Horns	19.2		-	10.4
	Swift	30.0	-	10.8	22.0
	Lake Francis	112.0		33.5	91.8
	Tiber	1,313.0	671.0	646.6	629.4**
Milk	Fresno	127.2	62.8	36.4	58.5
	Nelson	66.8	35.6	31.5	35.4
	Lake Sherburne	66.1		17.1	21.6
Yellowstone	Mystic Lake	20.8	8.5	8.6	7.8
	Tongue River	68.0		-	11.1**
	Cooney	27.5	14.8	17.9	13.6**

1/ Sum of four small reservoirs on west side of Flathead Lake.
2/ Sum of eight small reservoirs in Mission Valley not including Jocko Lake.

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). **AVERAGE FOR PERIOD OF RECORD

RESERVOIR STORAGE DATA

AS OF FEBRUARY 28, 1965

(1000 Acre Feet)

BASIN	RESERVOIR	USEABLE CAPACITY	USEABLE STORAGE THIS YEAR	USEABLE STORAGE LAST YEAR	USEABLE STORAGE AVERAGE
COLUMBIA RIVER BASIN					
Flathead	Hungry Horse	3,452.0	2,370.0	2,297.0	2,436.3***
	Flathead Lake	1,791.0	1,143.0	1,161.0	844.6
	Camas 1/	45.2	20.3	18.7	32.2
	Mission Valley 2/	100.3	39.3	19.6	34.5
Clark Fork	Georgetown Lake	31.0	26.9	27.4	23.2
	Noxon Rapids	334.6	-	282.9	-
Bitterroot	Como	34.9	15.4	7.8	11.8
	Painted Rocks	31.7	-	21.8	13.5***
MISSOURI RIVER BASIN					
Beaverhead	Clark Canyon	255.6	74.2	-	-
	Lima	84.0	45.7	-	26.1
Ruby	Ruby	38.8	-	-	23.0***
Madison	Hebgen Lake	384.8	220.8	211.3	179.1
	Ennis Lake	41.0	23.5	39.2	27.3
Gallatin	Middle Creek	8.0	3.9	3.0	3.6***
Missouri	Canyon Ferry	2,042.0	1,763.0	1,737.0	1,514.9***
	Hauser & Helena	61.9	61.3	56.2	53.9
	Lake Helena	10.4	10.2	8.4	7.8
	Holter Lake	81.9	40.1	22.5	50.6
	Smith River	10.7	8.7	7.6	5.6***
	Ackley Lake	5.8	-	-	3.8
	Durand	7.0	6.3	4.2	4.2***
	Martinsdale	23.1	7.5	8.0	8.1***
	Deadman's Basin	72.2	48.0	31.6	39.8***
	Fort Peck	19,410.0	15,220.0	11,556.0	10,595.2
Sun	Gibson	105.0	48.0	17.3	58.5
	Willow Creek	32.3	15.8	21.1	18.4
	Pishkun	32.0	17.4	17.2	19.7
Marias	Lower Two Medicine	16.6	-	-	0.0
	Four Horns	19.2	-	-	10.4
	Swift	30.0	-	10.8	22.0
	Lake Francis	112.0		33.5	91.8
	Tiber	1,313.0	671.0	616.6	629.4***
Milk	Fresno	127.2	62.8	36.4	58.5
	Nelson	66.8	35.6	31.9	35.4
	Lake Sherburne	66.1		17.1	21.6
Yellowstone	Mystic Lake	20.8	8.5	8.6	7.8
	Tongue River	68.0	-	-	11.1***
	Cooney	27.5	14.8	17.9	13.6***

1/ Sum of four small reservoirs on west side of Flathead Lake.
2/ Sum of eight small reservoirs in Mission Valley not including Jocko Lake.

Agencies Cooperating in Collecting Data Contained in this Bulletin

U. S. Forest Service
Region 1, Missoula, Montana

U. S. Geological Survey
Helena, Montana

U. S. Army Corps of Engineers
Portland, Oregon
Seattle, Washington
Omaha, Nebraska

U. S. Indian Irrigation Service
St. Ignatius, Montana

U. S. Weather Bureau
Helena, Montana

U. S. Bureau of Sports Fisheries and Wildlife
Red Rock Lakes Refuge
Monida, Montana

U. S. Bureau of Reclamation
Billings, Montana
Boise, Idaho

Montana Power Company
Butte, Montana

Agricultural Experiment Station
North Montana Branch Station
Havre, Montana

State Water Conservation Board
Helena, Montana

National Park Service
Yellowstone National Park
Glacier National Park

Montana Experiment Station
Montana State College
Bozeman, Montana

Bonneville Power Administration
Portland, Oregon

Montana State University
School of Forestry
Missoula, Montana

Soil Conservation Service
Montana, Wyoming, Idaho

Soil and Water Conservation Districts
Montana Counties

Johnson Flying Service, Inc.
Missoula, Montana

Water Rights Branch, Dept. of Lands and Forests
Victoria, British Columbia

Department of Northern Affairs and National Resources
Calgary, Alberta

State Engineer
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